

REMARKS

The Official Action mailed August 8, 2005, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statement filed on July 24, 2003.

Claims 1-21 are pending in the present application, of which claims 1-6 and 13-15 are independent. Claim 1 has been amended to better recite the features of the present invention. Claims 2, 4, 6, 8, 10 and 12-18 have been withdrawn from consideration by the Examiner (page 2, Paper No. 20050726). Accordingly, claims 1, 3, 5, 7, 9, 11 and 19-21 are currently elected, of which claims 1, 3 and 5 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 6 of the Official Action rejects claims 1, 3, 5, 7, 9, 11 and 19-21 as obvious based on the combination of U.S. Patent No. 6,333,493 to Sakurai et al. and U.S. Patent No. 3,612,939 to Rabinowitz. The Applicant respectfully traverses the rejection because the Official Action has not made a *prima facie* case of obviousness. Also, with respect to independent claim 1, the Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the claim 1, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the

teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

There is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Sakurai and Rabinowitz or to combine reference teachings to achieve the claimed invention. MPEP § 2142 states that the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. It is respectfully submitted that the Official Action has failed to carry this burden. While the Official Action relies on various teachings of the cited prior art to disclose aspects of the claimed invention and asserts that these aspects could be used together, it is submitted that the Official Action does not adequately set forth why one of skill in the art would combine the references to achieve the features of the present invention.

The test for obviousness is not whether the references "could have been" combined or modified as asserted in the Official Action, but rather whether the references should have been. As noted in MPEP § 2143.01, "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) (emphasis in original). Thus, it is respectfully submitted that the standard set forth in the Official Action is improper to support a finding of *prima facie* obviousness.

The Official Action concedes that Sakurai does not teach “applying a coolant to the treatment object and the coolant being nitrogen or helium” (page 4, Paper No. 20050726). The Official Action relies on Rabinowitz to allegedly teach the features missing from Sakurai and asserts that these features are “conventional in the art (col. 7, lines 20-57)” (*Id.*). The Official Action asserts that “it would have been obvious to a person of ordinary skill in the art at the time of the invention to specify the step of applying a coolant to the treatment object and the coolant being nitrogen or helium as taught by Rabinowitz in order to cool the treatment object without causing any damage to the structure while avoiding thermal stress” (page 5, *Id.*). The Applicant respectfully disagrees and traverses the above assertions in the Official Action.

The Applicant respectfully submits that Rabinowitz may not be relied upon as a basis for rejection. MPEP § 2141.01(a) states the following:

The examiner must determine what is “analogous prior art” for the purpose of analyzing the obviousness of the subject matter at issue. “In order to rely on a reference as a basis for rejection of an applicant’s invention, the reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.” *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). See also *In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992).

Sakurai relates to a heat treatment method or a heat treatment apparatus for manufacturing a semiconductor device (column 1, lines 14-53). However, Rabinowitz “relates to a vacuum-type circuit interrupter ... for condensing and removing the vapors and gases generated during arcing, for efficiently sorbing, trapping, or scattering incident particles and photons, and for removing gases which may permeate or leak into the interrupter vessel” (column 1, lines 3-9). Therefore, Sakurai and Rabinowitz belong to different technical fields. The Official Action has not shown that Rabinowitz is in the field of applicant’s endeavor or that Rabinowitz is reasonably pertinent to the particular problem with which the Applicant is concerned. The Applicant respectfully submits that a molecular sieve for a vacuum circuit interrupter (Rabinowitz) is not reasonably

pertinent to Sakurai or the features of the present invention. Therefore, the Official Action may not rely on Rabinowitz as a basis for rejection.

Further, it is not sufficient to merely point out the advantages of two references and assert that it would have been obvious to combine the two references so that you can have both advantages in one device. Rather, in order to form a *prima facie* case of obviousness, the Official Action must show that the references should have been combined.

Therefore, the Applicant respectfully submits that the Official Action has not provided a proper suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Sakurai and Rabinowitz or to combine reference teachings to achieve the claimed invention.

In the present application, it is respectfully submitted that the prior art of record, either alone or in combination, does not expressly or impliedly suggest the claimed invention and the Official Action has not presented a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

For the reasons stated above, the Official Action has not formed a proper *prima facie* case of obviousness.

Also, the prior art, either alone or in combination, does not teach or suggest all the features of independent claim 1, as amended. Independent claim 1 has been amended to recite "holding a treatment object in a processing chamber filled with a coolant for cooling the treatment object" and "said lamp light source is turned on and the radiation from said lamp light source is held for 0.1 to 20 seconds at a time, while an amount of supply of the coolant is reduced." Sakurai and Rabinowitz, either alone or in combination, do not teach or suggest turning a lamp light source on while an amount of supply of coolant is reduced.

Since Sakurai and Rabinowitz do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration

and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Paragraph 7 of the Official Action rejects claims 1 and 7 as obvious based on U.S. Patent 5,530,265 to Takemura. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

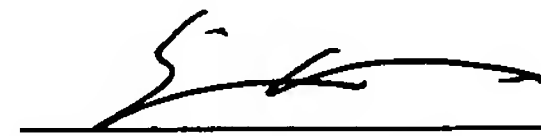
As noted above, independent claim 1 has been amended to recite "holding a treatment object in a processing chamber filled with a coolant for cooling the treatment object" and "said lamp light source is turned on and the radiation from said lamp light source is held for 0.1 to 20 seconds at a time, while an amount of supply of the coolant is reduced." Takemura does not teach or suggest the above-referenced features of the present invention.

Since Takemura does not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

The Official Action provisionally rejects claims 1, 3, 5, 7, 9, 11 and 19-21 under the doctrine of obviousness-type double patenting over claims 13-28 of copending Application Serial No. 10/001,197 to Dairiki et al. In response, the Applicant respectfully requests that the provisional double patenting rejections be held in abeyance until an indication of allowable subject matter is made in either the present application or the copending application. At such time, the Applicant will respond to any remaining double patenting rejections.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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